### Revision of the Araneae of New Zealand.

#### Part II.

By G. CHAMBERLAIN.

### 4. Sub-Order Dipneumonomorphae.

Araneae with non-segmented abdomen, one pair of book-lungs and one pair of tracheae. There may be a single or two tracheal spiracles. This Sub-Order contains the majority of the species occurring in New Zealand. The forty-nine or more families comprising the Dipneumonomorphae are divided into three Branches, (1) Trionychae, (2) Dionychae and (3) Quadrostiatae. The following key will serve to separate into families the spiders likely to be found in New Zealand.

	Key to Families Occurring in New Zealand.	
1.	Abdomen with two pair of spiracles	
2.	Colulus present; pedipalp of female with claw Fam. Segestriidae Colulus absent; pedipalp of female without claw Fam. Oonopidae	
3.	Three tarsal claws	1
4.	Anal tubercle large, two-jointed, with a fringe of long hair. Cribellum and calamistrum present	
	Cribellum and calamistrum present	5
6.	Tarsi with or without claw-tufts, with or without scopulae. Cribellum divided or entire. Thoracic groove longitudinal. Chelicerae with boss. Lip free. Eight eyes in two rows, homogeneous, diurnal	
	Tarsi without claw-tufts Fam. Psechridae	
7.	Eyes homogeneous, diurnal. Cribellum entire. Tarsi without trichobothria. Femora and metatarsi with trichobothria. Eight eyes in two rows	
8.	Tarsi with single row of trichobothria; maxillary lobes more or less parallel; cribellum divided	
9.	First and second tibia and metatarsus with a pro-row of long spines, interspaces with row of much shorter curved spines Fam. Mimetidae No such arrangement of spines	
10.	Fourth tarsi with ventral row of serrated bristles forming distinct "comb"	
11.	Chelicerae soldered together at base	

12.	Tarsi normal with serrated bristles; eyes in three diads; lip long. Fam. Sicariidae	
	Tarsi long, flexible; indirect eyes in two triads; lip wide. Fam. Pholcidae	
13.		
	claws Serrated bristles wanting on tarsi or not in shape of spurious claws	16
14.	External surface of chelicerae with stridulating ridges	
	Stridulating ridges on chelicerae wanting Fam. Argiopidae	
15.	Pedipalp of female with claw. Male palpal tibia with no apophysis. Fam. Linyphiidae	
	Pedipalp of female without claw. Male palpal tibia with one or more apophyses Fam. Micryphantidae	
16.	Chelicerae without boss; colulus absent Fam. Zodariidae Chelicerae with distinct boss	17
17.	Tarsal trichobothria in a regular row	18 19
18.		
19.	Only 4th trochanters with slight notch; posterior row of eyes strongly	
	procurved Fam. Oxyopidae All trochanters strongly notched; posterior row of eyes recurved	20
20.	Superior claws with numerous teeth in single row; inferior claw with two or three teeth Fam. Pisauridae Superior claws with few teeth; inferior claw either smooth or with single tooth	
21.	Eye formula 4-2-2; a.m.e. largest, p.m.e. smallest of the eyes.	
	Fam. Attidae	
	Eyes either in two rows, or if in three rows, second row composed of four eyes, or else eyes distinctly heterogeneous	
22.	Anterior pair of spinnerets wide apart	23 24
	Retromargin of chelicerae either with a plate or lobes. Fam. Gnaphosidae Retromargin of chelicerae smooth or with two teeth; sometimes legs laterigrade with 4th coxae longer than others Fam. Drassidae	
24.	All tarsi without scopula; colulus present; chelicerae without scopula, margins usually smooth Fam. Thomisidae At least first and second tarsi with scopula; colulus absent; chelicerae with scopula, margins toothed	25
25.	Fam. Sparassidae	
	Legs prograde; apical end of metatarsi with chitinous rim	26
26.	Eight eyes in two rows of four each; scopula of maxillary lobes not reaching over external surface	
	Over external burness treatment of the contract	

#### Branch TRIONYCHAE.

(Spiders with 3 pairs of cardiac ostia and 3 tarsal claws).

### Family Oecobiidae.

A specimen captured in 1935 at Waipoua probably belongs to this family. Unfortunately, however, the specimen is in a very badly damaged condition and it does not appear to be advisable to describe it at this stage. Perhaps further specimens will be obtained when the locality is again visited.

### Family Sicariidae.

Key to Sub-Families Occurring in New Zealand.

Eight eyes in two rows ...... Sub-Fam. Plectreurinae Six eyes in three diads ..... Sub-Fam. Periegopinae

### Sub-Family Plectreurinae. Genus PLECTOPHANES Bryant, 1935.

1935 Plectophanes Bryant, Rec. Cant. Mus., 4, p. 81.

Type: P. FRONTALIS Bryant (Canterbury Museum Collection).

Thoracic groove longitudinal; chelicerae with boss, teeth on both margins of furrow; eight eyes in two rows, homogeneous, anterior row recurved, posterior row of eyes much larger than those of anterior row; abdomen and legs covered with a fine pubescence.

### Plectophanes frontalis Bryant, 1935.

1935 Plectophanes frontalis Bryant, Rec. Cant. Mus., 4, p. 81, figs 10, 12, 14, 27.

(Type in Canterbury Museum Collection).

Cephalothorax brown, darkening on head, with thin covering of fine white hairs; eight eyes, anterior row beneath frontal lobe, strongly recurved, subequal; a.m.e. separated by about their radius, a.l.e. about four diameters from a.m.e.; posterior row of eyes recurved, eyes subequal, much larger than eyes of anterior row; p.m.e. separated by their diameter and from p.l.e. by  $4\frac{1}{2}$  times their diameter; quadrangle of median eyes longer than wide, much narrowed in front, chelicerae dark brown with long hairs and bristles, with a boss; promargin of furrow with two teeth, the first the larger, retromargin with two teeth near base of the fang; legs (1, 2, 4, 3) yellowish; covered with fine hairs.

Distribution: Type locality Waikanae and also Wellington. I have captured one specimen on the Karori hills.

As suggested by Bryant, this species shows certain affinities with members of the family *Dysderidae* and at present its Sub-Family status is in doubt.

### Sub-Family Periogopinae. Genus PERIEGOPS Simon, 1893.

1893 Periegops Simon, Hist. Nat. Ar., 1, p. 267.

Type: P. HIRSUTUS Simon.

Cephalothorax convex, not attenuated; front wide and blunt, head not distinct; six eyes, small and equal, in three diads, widely separated and occupying total width of front; clypeus broad, slightly convex; chelicerae robust, retromargin with carinas, promargin elevated with three large teeth; labium much longer than wide, blunt, convex; maxillary lobes long, parallel, pointed in an oblique manner; legs (4, 1, 2, 3), not spined but with rigid setae; three tarsal claws, superior claws pectinate in a double row; abdomen oval, inferior spinnerets robust and short.

### Periegops suteri (Urquhart), 1891.

Segestria suteri Urquhart, Trans. N.Z. Inst., 24. p. 230 ( $^\circ$ ). Periegops hirsutus Simon, Hist. Nat. Ar., 1, p. 267 (Genotype).

1893

P. hirsutus, Dalmas, Ann. Soc. ent. Fr. 86, p. 317. 1917

1935 P. suteri, Bryant, Rec. Cant. Mus., 4, p. 53-70.

1939 P. suteri, Bryant, 1oc. cit. p. 71-93, figs. 4, 13, 25 (8)

(Allotype male in Canterbury Museum Collection).

Cephalothorax yellow brown, darkening on head; thoracic groove absent; six eyes, very small, subequal, nocturnal, in three widely separated diads; chelicerae brown with few long white hairs; retromargin with two carinas, the anterior ending at fang groove with tooth on promargin; fang short with very thick base; maxillary lobes one-third longer than labium more or less parallel, curved over lip; sternum oval, two-thirds as wide as long; legs (4, 1, 2, 3) light brown, clothed with rows of stiff hairs; first three pairs directed forwards; abdomen light yellow-brown clothed with stiff hairs, ovoid.

Distribution: Type localities Dyer's Pass and Port Hills, both in Canterbury. This species appears to be confined to the northern half of the South Island.

P. hirsutus Simon is placed as a synonym after examining a specimen so labelled by Dalmas.

### Family Pholcidae.

### Sub-Family Pholcinae. Genus PHOLCUS Walckenaer, 1805

1805 Pholeus Walckenaer, Tabl. Aran., p. 80.

Type: P. PHALANGIOIDES (Fuesslin).

Anterior row of eyes in straight line, medians at least a third smaller than laterals, themselves subcontiguous but their width from the laterals. Posterior eyes on both sides contiguous. Median area trapeziform, much broader than long. Clypeus more than three times width of ocular area and depressed a little below the eyes, then obliquely downwards. Chelicerae forming chelate structure.

### Pholcus phalangioides (Fuesslin).

1917 P. phalangioidess Dalmas, Ann. Soc. ent. Fr., 86, p. 317.

Eight eyes; a.m.e. set on tubercle, subcontiguous, smallest of the eyes; a.l.e. largest of eyes, each set on tubercle together with corresponding posterior eyes; contiguous with p.l.e., subcontiguous with p.m.e.; posterior row of eyes slightly recurved, equal, nocturnal; chelicerae of a chelate structure; spinnerets eight, terminal; legs very long, thin; epigynum distinctive.

Distribution: Cosmopolitan, introduced. This is probably the most abundant species in New Zealand.

This spider generally inhabits dwellings and is rarely found in an uninhabited area. It is commonly referred to as "daddy long-legs," although this name is more correctly applied to the Phalangida.

### Family Mimetidae. Sub-Family Mimetinae. Genus MIMETUS Hentz, 1832.

1832 Mimetus Hentz, Sillim. Jour., 41, p. 99.

Type: M. INTERFECTOR Hentz.

Cephalothorax long, moderately convex; median ocular area not longer than broad and much wider anteriorly than posteriorly; laterals not very far from medians; clypeus much narrower than ocular area but wider than a.m.e.; chelicerae long; labium much longer than wide, point attenuated and obtuse; maxillary lobes narrow and long, converging; legs long, unequal, spined, tibia and metatarsis of anterior legs typically so; abdomen convex, commonly with angular prominence.

### Key to New Zealand Species.

P.m.e. separated by half their diameter and from p.l.e. by more than ..... M. mendicus Cambridge P.m.e. separated by their diameter and from p.l.e. by less than diameter. M. senio (Urquhart)

### Mimetus mendicus Cambridge, 1879.

Mimetus mendicus Cambridge, Proc. Zool. Soc., p. 697, pl. 53, fig. 14 (?). M. atri-cinctum Urquhart, Trans N.Z. Inst., 24, p. 234 ( &).

1917 M. atro-cinctus: Dalmas, Ann. Soc. ent. Fr., 86, p. 317.

1917 M. mendicus: Dalmas, loc. cit. supra.

1937 M. mendicus: Bryant, Rec. Cant. Mus., 4, p. 71, fig. 28, 29.

Cephalothorax small, pale yellow, elongate oval; eyes eight, anterior row recurved, subequal, a.m.e. on tubercle, separated by their diameter and from a.l.e. by more than diameter; posterior row procurved, subequal, p.m.e. separated by half diameter and from p.l.e. by more than diameter; laterals contiguous; median ocular area almost square, a little longer than wide and a little narrower posteriorly than anteriorly; clypeus vertical, near the height of median ocular area; legs 1, 4, 2, 3; anterior four very long and typically spined, first femur with broken dark rings; sternum oval, truncated anteriorly; abdomen whitish mottled with dark grey, convex above with typical blunted tubercles.

Distribution: Uncommon but found in both Islands.

The Mimetidae were formerly placed with the Theridiidae, indeed the two species occurring in New Zealand appear at first sight to be a Theridion.

### Mimetus senio (Urquhart), 1890.

Linyphia senio Urquhart, Trans. N.Z. Inst., 23, p. 137, pl. 21, fig. 15, 16. Mimetus senio: Dalmas, Ann. Soc. ent. Fr., 86, p. 317.

Cephalothorax dark orange; posterior row of eyes procurved, p.m.e. separated by their diameter and from p.l.e. by less than diameter; anterior row of eyes recurved, a.m.e. larger than p.m.e. separated by diameter and from a.l.e. by a little more than half a diameter; a.l.e. smallest of the eyes.

Distribution: Type locality Stratford.

## Family Uloboridae. Sub-Family Uloborinae. Genus ULOBORUS Latreille, 1806.

1806. Uloborus Latreille. Gen. Crust. Ins., 1, p. 109.

Type: U. WALCKENAERIUS Latr.

Posterior eyes small, equal in more or less recurved line, medians separated by about same as from laterals. Anterior eyes in slightly procurved line, medians from laterals a little more than between themselves. Median ocular area longer than wide, occasionally equal length and width, anteriorly a little narrower than posteriorly, a.m.e. nearly always the greater. Legs 1, 4, 2, 3, sparingly armed with short spines. Anterior metatarsi thin, longer than patella plus tibia. Calamistrum at apex of metatarsi. Abdomen pointed posteriorly and spinnerets terminal.

### Uloborus waitakerensis n. sp. Figs. 1-4.

Female (Holotype). Total length from posterior end of abdomen to anterior end of cephalothorax 3.33 mm. Carapace 1.17 mm. long, 0.94 mm. wide in middle of head, 1.06 mm. wide between second and third coxae where it is widest. The carapace is almost circular. The sides of the head slope towards the geometrical centre of the carapace forming a short flattened cone with the base directed forwards. Thoracic groove indicated by a very slight shallow depression. Carapace truncated on posterior edge, which is recurved to take the articulation of the pedicle.

Head only slightly raised above the thorax commencing at about the mid-point of the carapace and maintaining a level dorsal surface in contrast to the more or less evenly sloping sides of the remainder of the carapace.

Eight eyes in two rows, homogeneous, diurnal. When viewed from above both rows appear parallel, recurved. View from the front the anterior row of eyes is procurved. Width of anterior row of eyes 0.61 mm., of the posterior row 0.67 mm.

Ratio of eyes A.M.E.: A.L.E.: P.M.E.: P.L.E. = 7: 6: 8: 6.

The a.m.e. are separated from each other by one and a half times the diameter of the a.l.e. which are separated by their diameter from the a.m.e. The p.m.e. are separated from each other by one and a fifth times their diameter and from the p.l.e. by three-quarters their diameter.

Quadrangle of median eyes wider behind than in front in the ratio 10:9, longer than wide in ratio 20:9.

All the eyes are set in black rings. Clypeus 0.08 mm. high.

Chelicera with boss. No teeth are visible on the margins. The aperture of the poison duct could not be detected.

Lip free, as wide as long. The lip is roughly oval, passing anteriorly into a small acute projection. The end of the lip does not quite reach the middle of the visible length of the maxillae. At the sides it slightly overlaps the lobe of the maxillae.

Maxillae with sides more or less parallel, the ventral surface of each lobe with 7 short stiff hairs or bristles. Scopulae absent. The maxillae are articulated slightly above and beneath the sternal plate.

Sternum longer than wide. Widest at level of first pair of legs narrowing posteriorly. Fourth coxae separated by sternum.

Fourth coxae heavier than remainder and as long as the first, which are about one and a half times the length of the second and third. The coxae are more or less evenly spaced.

Leg Formula		1	4	2	3		
		6.6 4.5		3.6	25		
	Femur	Pat.	& Tibia	, 1	Metatarsus	Tarsus	Total
I	2.11		2.44		2.11	1 06	7.72
II	1.28		1.33		1.00	0.61	4.22
III	0.94		0.89		0.61	0.43	2.87
ĬV	1 56		1.61		1.22	0.89	5.28

Width of first patella 0.240 mm. First tibial index 9.8. Width of Fourth patella 0.192 mm. Fourth tibial index 11.9.

Palp. Femur dorsal 0.30; Patella ventral 0.03, dorsal 0.13; Tibia ventral 0.11, dorsal 0.13; Tarsus 0.40.

Spines. First leg. Femur dorsal 0-0-1; Tibia prolateral 0-1-1, retrolateral 0-0-1; Metatarsus dorsal 2-1-1, retrolateral 0-1-0. Second leg. Femur dorsal 0-1-0; Patella dorsal 1-1; Tibia dorsal 1-0-0.

Third leg. Patella dorsal 1-1; Metatarsus ventral 0-0-2. Fourth leg. Tibia dorsal 0-1-0, prolateral 0-0-1; Metatarsus ventral 0-0-2, prolateral 1-1-1; Tarsus 0-1-0. Elsewhere nil.

Trichobothria. First leg 0. Second leg. Femur 1-1-2 in proximal half.

Tibia 2 about halfway. Third leg. Trochanter 1. Femur
prolateral row of 7 in proximal three-quarters of joint. Tibia
2. Fourth leg. Trochanter 2. Femur prolateral row of 12
along length of segment. Tibia 4 scattered.

Calamistrum occupying a little more than a third the length of the 4th metatarsus, consisting of about 22 bristles of moderate length.

Abdomen ovoid, humped anteriorly. Cribellum undivided. Spinnerets six, terminal. Anterior pair of spinnerets widely separated, set at each end of cribellum. Basal joint large, sparsely clothed with black hair. Terminal joint small. Median pair short and slender, contiguous, half length of anterior pair. Posterior pair same length or very slightly larger than anterior pair. Terminal joint cone shaped.

Epigynum in form of indistinct equilateral triangle with an opening set below each end of the base, deeply set in the furrow.

Colour in alcohol. General appearance mottled yellow grey. Abdomen with a background of grey black, patches of dull white very numerous on dorsal surface, less as ventral aspect is approached. Ventral surface with two longitudinal rows of white passing from outer edges of epigynum to middle of

Cephalothorax yellow brown with median wide longitudinal band of grey-black passing from pedicle to just behind posterior row of eyes. A triangle of yellow brown with base on the p.m.e. cuts back into this band. Legs yellowish interspaced with wide rings of grey-black. Rings more numerous on fourth pair of legs.

Four females of this species were captured on the Watershed Reserve, Waitakere hills, Auckland. One of these is the holotype described above. The others are cotypes, one of which is immature. The holotype and one cotype are in the author's collection. Two cotypes are deposited in the Auckland Museum collection.

### Family Dictynidae. Sub-Family Dictyninae. Genus DICTYNA Sundevall, 1833.

1833 Dictyna Sundevall, Consp. Arachn., p. 16.

Type: D. ARUNDINACEA L.

Anterior row of eyes straight, nearly equidistant, equal or a.m.e. a little smaller. Posterior eyes minute, equal and widely separated, in a slightly recurved line. Median ocular area trapeziform (anterior a little narrower), either square or not much longer than wide. Lateral eyes subcontiguous. Clypeus much wider than anterior eyes. Labium longer than broad. Cribellum divided or entire.

### Key to New Zealand Species.

Boss of chelicera very prominent, raised in form of a tooth D. cornigera Dalmas Boss of chelicera not prominent as above ...... D. decolora (Urquhart)

### Dictyna cornigera Dalmas, 1918.

1918 D. cornigera Dalmas, Ann. Soc. Ent. France, 86. p. 336, figs. 9-12.

Cephalothorax chestnut, gradually darkening anteriorly; abdomen mouse-grey; eyes generically normal; clypeus slightly concave, raised anteriorly; chelicerae contracted in middle, leaving between them a hollow in form of a prolonged diamond; boss long, not attentuated, towards centre of superior face, producing a tooth-like angular projection on front of clypeus; fang stout and long, superior margin armed with strong teeth towards extremity; cribellum entire; calamistrum entire; calamistrum occupies more than half of the joint.

Distribution: Type locality Temuka. The Auckland Museum collection contains an immature female captured in Taranaki which may be of this species.

### Dictyna decolora (Urquhart), 1893.

1893 Linyphia decolor Urquhart, Trans. N.Z. Inst., 26, p. 208. 1918 Dictyna nigella Dalmas, Ann. Soc. Ent. France, 86, p. 338, fig 13.

1935 Dictyna decolor: Bryant, Rec. Cant. Mus., 4, p. 1.

A suitable description of this species is given by Urquhart, but of course the presence of cribellum and calamistrum were not noticed at the time. Size smaller than previous species; a.m.e. smaller and a.l.e. larger. Chelicera almost normal without a very prominent boss.

Distribution: Uncommon, but found in both Islands.

### Family Micryphantidae. Sub-Family Erigoninae.

Key to Genera Occurring in New Zealand.

Anterior median eyes subcontiguous ...... Genus Diplocephalus 

### Genus DIPLOCEPHALUS Bertkau, 1883.

1883 Diplocephalus Bertkau, Beitr. z. Kennt. Sp. Reinp.

Type: D. CRISTATUS (Blackwall).

Posterior eyes quite large or moderate, in a straight line or more or less procurved, equidistant or rarely medians farther from laterals than between themselves (interocular space rarely wider than eyes). Anterior eyes in a straight line, medians subcontiguous but well separated from laterals. Median area trapeziform, larger than wide. Clypeus almost equal to eve space.

### Diplocephalus cristatus (Blackwall), 1833.

1833 Walckenaera cristatus Blackwall, Lond. & Edin. Mag., 3. p. 107.
1879 Walckenaera cristatus: Cambridge, Proc. Zool. Soc., p. 693.
1883 Diplocephalus cristatus: Bertkau, Beitr. z. Kennt. Sp. Reinp.
1918 Diplocephalus cristatus: Dalmas, Ann. Soc. Ent. Fr., 86, p. 317.

This species was first recorded from New Zealand by Cambridge in a series of specimens collected by Mr. Atkinson.

I have not found this species in New Zealand.

### Genus ERIGONE Audouin.

1827. Erigone Audouin, in Sav., Egypt. Ar., 1825-27.

Type: E. VAGANS Audouin.

Margin of cephalothorax obtuse, head convex, front broad. Posterior eyes moderate sized, equal and about equidistant. Anterior eyes in straight line or scarcely procurved, medians farther from laterals than between themselves. Median area not or scarcely longer than wide. Clypeus flat, wider than ocular area. Legs medium, tibia quite strongly armed. Margin of cephalothorax, exterior margin of chelicera and sometimes anterior femora, very often with serrated teeth.

### Erigone atriventer Urquhart, 1886.

1886 Erigone atriventer Urquhart, Trans. N.Z. Inst., 19, p. 102. 1935 Erigone atriventer: Bryant, Rec. Cant. Mus., 4, p. 1-26, fig. 26. Erigone atriventer: Dalmas, Ann. Soc. ent. France, 86, p. 317.

This species was described from a female specimen found at Karaka. The type is in a very poor condition but is preserved in the Canterbury Museum collection. Both Dalmas and Bryant doubt the generic status of the species, but, as stated by Bryant, the correct genus cannot be established until a male is described. It is unfortunate that a number of the genera of this sub-family have been established on characters peculiar to the male.

This species is not represented (other than by the type) in any of the collections examined.

# Family Psechridae. Sub-Family Matachiinae. Genus MATACHIA Dalmas, 1918.

1918 Matachia Dalmas, Ann. Soc. ent. France, 86, p. 326.

1942 Matachia: Petrunkevitch, Trans. Conn. Acad. Arts Sci., 34, p. 221.

Type: M. RAMULICOLA Dalmas.

Claw-tufts wanting; cribellum entire; lip long; eyes subequal, anterior medians slightly smaller, separated from each other by about their diameter, posterior medians by much more than their diameter; anterior row of eyes slightly recurved, posterior row slightly procurved; quadrangle of median eyes much wider than long, wider behind than in front; legs (1, 2, 4, 3); calamistrum not reaching beyond two-thirds of metatarsus.

Key to Species Occurring in New Zealand.

### Matachia ramulicola Dalmas, 1918.

1918 Matachia ramulicola Dalmas, Ann. Soc. ent. France, 86, p. 328, figs. 1-4.

Cephalothorax oval, slightly elevated; thoracic groove very short, transverse; head light red in colour, long, slightly broadened in front; ocular group wide, occupying two-thirds of the front; anterior row of eyes slightly recurved, posterior row slightly procurved; eyes more or less subequal, a.m.e. slightly smaller, laterals subcontiguous but widely separated from medians; median ocular area wider than long and wider behind than in front; clypeus very narrow; chelicerae thick, projecting in front; inferior margin with two small granulations, superior margin with four small teeth, equal except the second from the base which is twice size of others; legs (1, 2, 4, 3), four anterior much longer than others; calamistrum in single line occupying a little more than half length of metatarsus; abdomen elongate subcylindrical; cribellum entire almost as wide as group of spinnerets.

Distribution: Type locality Matakitaki River, Nelson.

### Matachia rufoflavus n. sp. Figs. 5-10.

Female (Holotype). Total length 2.39 mm. Carapace 1.06 mm. long, 0.78mm. wide between second and third coxae, where it is widest. The thoracic portion is almost circular, truncated posteriorly; cephalic portion rectangular in horizontal section, more or less hemicylinderical in form. Thoracic groove very small, shallow, transverse.

Head in profile horizontal, sides of thorax sloping evenly so that head is somewhat raised above thorax.

Eight eyes in two rows, heterogeneous, a.m.e. alone diurnal. The posterior row is slightly longer than the anterior row, lateral eyes subcontiguous. Viewed from above, the anterior row is slightly recurved, the posterior row slightly procurved. Full width of eye group 0.32mm.

Ratio of eyes, A.M.E.: A.L.E.: P.M.E.: P.L.E. = 3: 3: 2: 3.

The a.m.e. separated from each other by two-thirds of their diameter and the same distance from the a.l.e. P.m.e. separated from each other by one and two-thirds the diameter of the a.m.e., and the same distance from the p.l.e.

Quadrangle of medians wider behind than in front in ratio 9: 8, wider than long in ratio 8.5: 8.

All the eyes are set in black rings, the laterals set on slight tubercles.

Clypeus about twice diameter of a.m.e.

Chelicerae with sides parallel, articulated directly under anterior row of eyes. Promargin with two teeth and retromargin with one tooth set as shown in the figure. Inner edge of paturon with a distinct mastidion.

Lip free, as wide as long, sides slightly overlapping maxillary lobes.

Maxillary lobes with sides parallel, not inclined over lip and with distinct serrula.

Sternum more or less pear-shaped, narrowing posteriorly.

Coxae of about equal size and length. Fourth coxae partly separated by the narrowed posterior portion of the sternum.

Leg Formula		1	2	4	3		
		2.9	2.5	2.3	2.2		
	Femur	Pat.	& Tibio	1	Metatarsus	Tarsus	Total
I	0.94		1.00		0.72	0.39	3.05
II	0.83		0.89		0.56	0.39	2.67
III	0.72		0.83		0.50	0.33	2.38
IV	0.78		0.83		0.50	0.33	2.44

Width of first patella 0.14 mm. First tibial index 14. Width of fourth patella 0.13 mm. Fourth tibial index 16.

Palp. Total length extends to end of femur of first leg.

Spines. Third leg. Patella dorsal 1 at proximal end. Tibia dorsal 2 at proximal end. Metatarsus ventral 2 at distal end. Fourth leg as for third but with only one spine on the tibia. Elsewhere nil.

Calamistrum 0.32 mm., occupying a little less than two-thirds of the length of the metatarsus.

Abdomen elongate oval as shown in figure. Cribellum entire, wide, occupying same width as the group of six spinnerets.

Epigynum as figured,

Colour in alcohol. General appearance yellow. Cephalothorax of even dulled yellow (brilliant yellow in living specimen). Abdomen with bright yellow background becoming dulled and lighter in colour towards lateral and ventral surfaces. At posterior end of abdomen there is an irregular shaped patch of bright cardinal red. The upper lateral and dorsal surfaces are speckled with opalescent white patches (not present in living specimen). The posterior red patch appears at the penultimate instar.

Male (Allotype). Total length 2.50 mm. Carapace 1.22 mm. long, 0.83 mm. wide between second and third coxae where it is widest. The contour of the cephalothorax is similar to that of the female except that the thoracic groove is very difficult to see. Head similar to that of female.

Eyes, eight in two rows, heterogeneous, a.m.e. diurnal directed forwards. The lateral eyes are subcontiguous, more so than in female. When viewed from above the anterior row is slightly recurved and the posterior row slightly procurved. Full width of eye group 0.40 mm.

Ratio of eyes, A.M.E.: A.L.E.: P.M.E.: P.L.E. = 4: 4: 3: 4.

The a.m.e. separated from each other by half their diameter and the same distance from the a.l.e. P.m.e. separated by one and two-thirds their diameter and the same distance from the p.l.e.

Quadrangle of median eyes wider behind than in front in ratio 10: 9, wider than long in ratio 9.5: 8.

All the eyes are set in black rings as in the female.

Clypeus, chelicerae, maxillary lobes, sternum and coxae similar to those of female.

Lip free, wider than long in ratio 17: 12, slightly overlapping the maxillary lobes.

Leg Formula		1	2	4	3		
		3.0	2.8	2.1	2.0		
I II III IV	Femur 1.17 1.11 0.72 0.67	Pat	Pat.& Tibio 1.28 1.11 0.78 0.89	M	0.83 0.78 0.67 0.67	Tarsus 0.39 0.39 0.33 0.33	Total 3.67 3.39 2.50 2.56

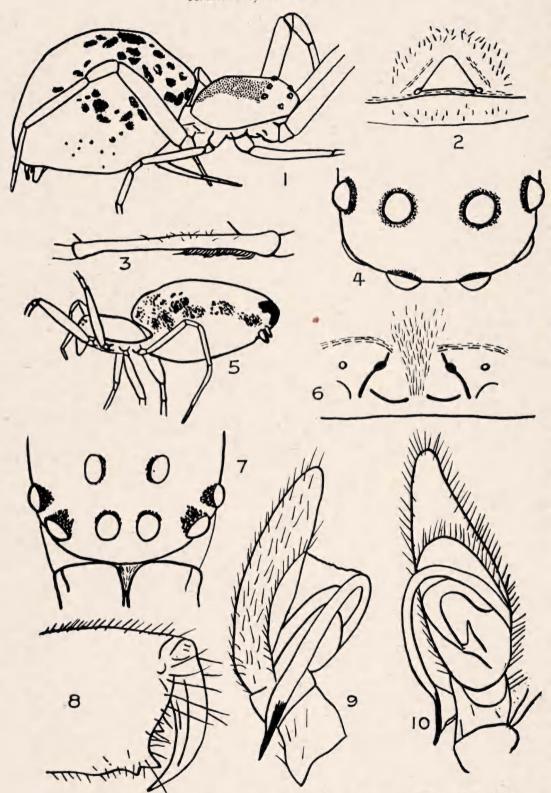
Width of first patella 0.16 mm. First tibial index 13. Width of fourth patella 0.14 mm. Fourth tibial index 16.

Palp extends to end of femur of first leg. Terminal joint as figured.

Spines. Third leg. Patella dorsal 1 at proximal end. Tibia dorsal 2 at proximal end. Metatarsus ventral 2 at distal end. Fourth leg as for third, but only 1 proximal spine on tibia. Elsewhere nil.

Colour in alcohol. Similar to female but cephalothorax dulled with a tint of brown. Chelicerae light brown. Posterior red patch on the abdomen is not always present.

Two males and two females were captured on Waiheke Island, Auckland, where they live on low tea-tree bushes. One pair of these, the holotype female and allotype male, described above, are in the author's collection. The other pair, designated as cotypes, are deposited in the Auckland Museum collection.



Uloborus waitakerensis n. sp. Fig. 1. Lateral view; 2. epigynum; 3. calamistrum; 4. disposition of eyes.

Matachia rufoflavus n.sp. Fig. 5. Lateral view; 6. epigynum; 7. disposition of eyes; 8. chelicera, front view; 9. male palp, lateral view; 10. male palp, ventral view.